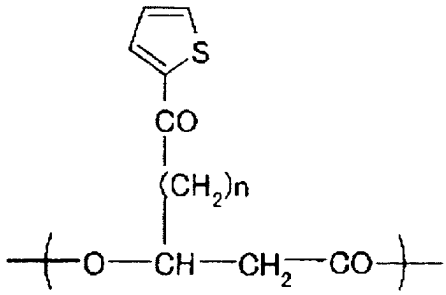
WHAT IS CLAIMED IS:

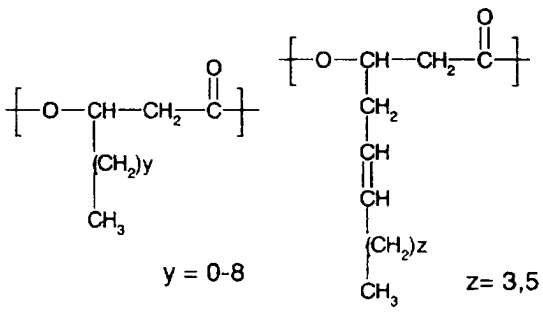
1. A polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):



(1)

wherein n may assume any one integral value within the range of from 1 to 8.

2. The polyhydroxyalkanoate according to claim 1, which contains, in addition to the unit represented by Chemical Formula (1), at least one of units represented by Chemical Formulas (2) and (3):



y = 0-8

z= 3,5

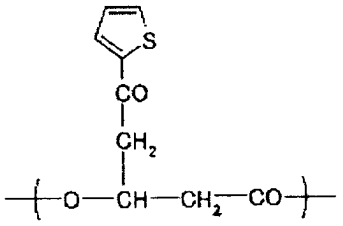
(2) , (3)

wherein y and z may assume any one integral value within the range shown in the chemical formulas, independently from the unit represented by Chemical

Formula (1).

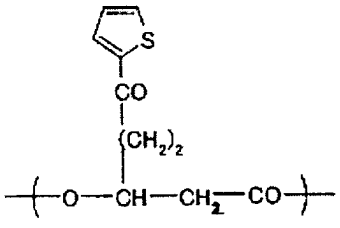
3. The polyhydroxyalkanoate according to claim 1, which has a number-average molecular weight in the range of from 1,000 to 500,000.

4. The polyhydroxyalkanoate according to claim 1, which contains as the unit represented by Chemical Formula (1) a unit represented by Chemical Formula (4):



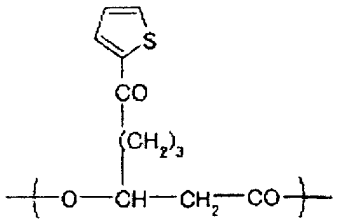
(4)

5. The polyhydroxyalkanoate according to claim 1, which contains as the unit represented by Chemical Formula (1) a unit represented by Chemical Formula (5):



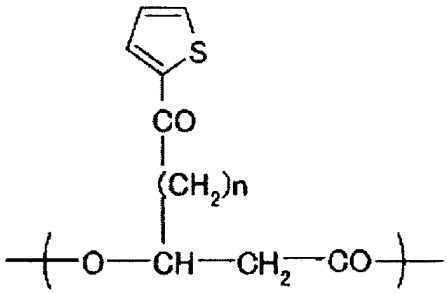
(5)

6. The polyhydroxyalkanoate according to claim 1, which contains as the unit represented by Chemical Formula (1) a unit represented by Chemical Formula (6):



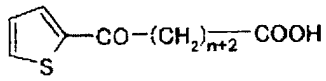
(6)

7. A process for producing a polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):



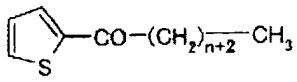
(1)

wherein n may assume any one integral value within the range of from 1 to 8,
the process comprising culturing a microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):



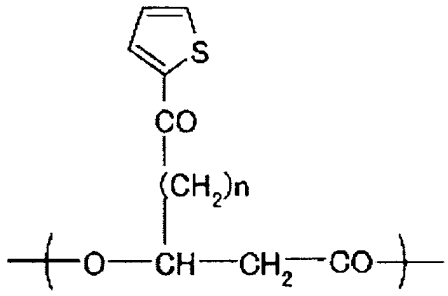
(7)

wherein n may assume any one integral value within the range of from 1 to 8,

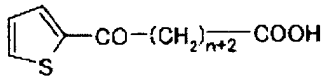

(8)

wherein n may assume any one integral value within the range of from 1 to 8.

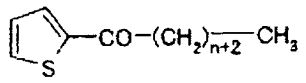
8. The process according to claim 7 for producing the polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):


(1)

wherein n may assume any one integral value within the range of from 1 to 8,
the process comprising culturing the microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):


(7)

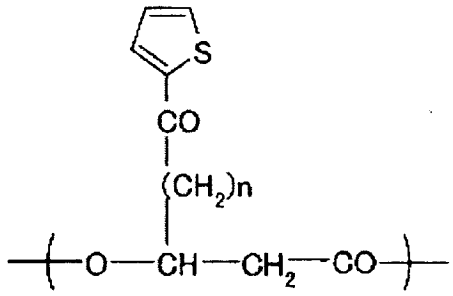
wherein n may assume any one integral value within the range of from 1 to 8,



(8)

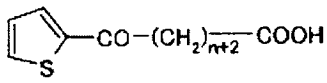
wherein n may assume any one integral value within the range of from 1 to 8,
and polypeptone.

9. The process according to claim 7 for producing the polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):



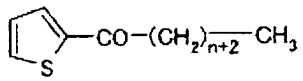
(1)

wherein n may assume any one integral value within the range of from 1 to 8,
the process comprising culturing the microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):



(7)

wherein n may assume any one integral value within the range of from 1 to 8,

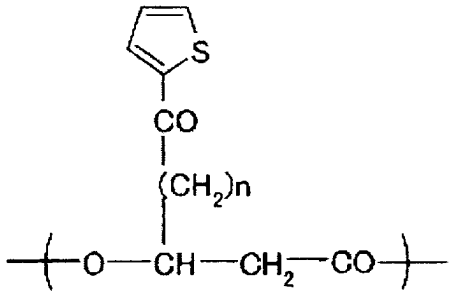


(8)

wherein n may assume any one integral value within the range of from 1 to 8,

and yeast extract.

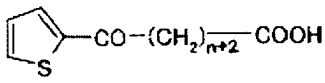
10. The process according to claim 7 for producing the polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):



(1)

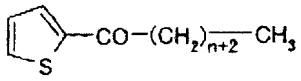
wherein n may assume any one integral value within the range of from 1 to 8,

the process comprising culturing the microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):



(7)

wherein n may assume any one integral value within the range of from 1 to 8,

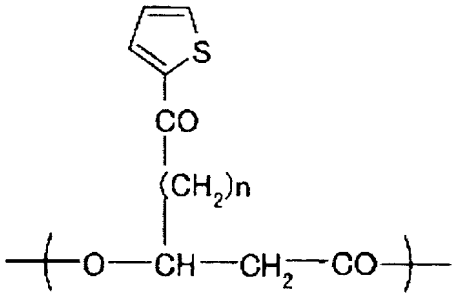


(8)

wherein n may assume any one integral value within the range of from 1 to 8,
and a saccharide.

11. The process according to claim 10, wherein the saccharide is at least one compound selected from the group consisting of glyceraldehyde, erythrose, arabinose, xylose, glucose, galactose, mannose, fructose, glycerol, erythritol, xylitol, gluconic acid, glucuronic acid, galacturonic acid, maltose, sucrose and lactose.

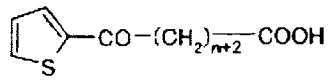
12. The process according to claim 7 for producing the polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):



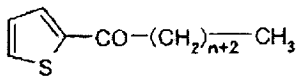
(1)

wherein n may assume any one integral value within the range of from 1 to 8,

the process comprising culturing the microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):


(7)

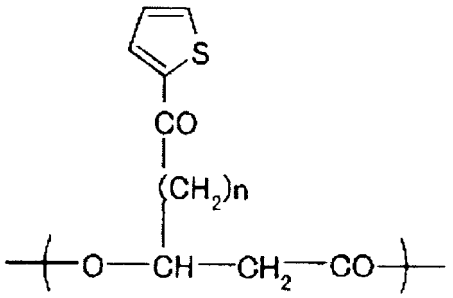
wherein n may assume any one integral value within the range of from 1 to 8,


(8)

wherein n may assume any one integral value within the range of from 1 to 8,
and an organic acid or a salt thereof.

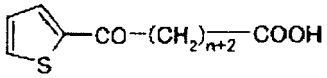
13. The process according to claim 12, wherein the organic acid or the salt thereof is at least one compound selected from the group consisting of pyruvic acid, malic acid, lactic acid, citric acid and succinic acid and a salt of any of these.

14. The process according to claim 7 for producing the polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):



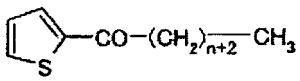
(1)

wherein n may assume any one integral value within the range of from 1 to 8,
the process comprising culturing the microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):



(7)

wherein n may assume any one integral value within the range of from 1 to 8,



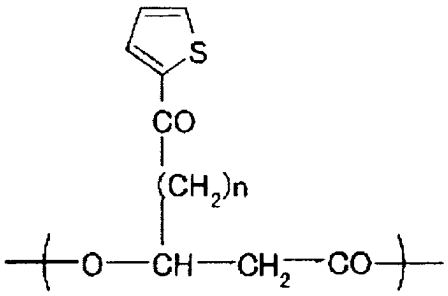
(8)

wherein n may assume any one integral value within the range of from 1 to 8,
and an amino acid or a salt thereof.

15. The process according to claim 14, wherein the amino acid or the salt thereof is at least one compound selected from the group consisting of glutamic acid and aspartic acid and a salt of any of

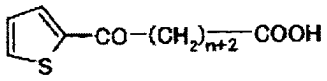
these.

16. The process according to claim 7 for producing the polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):



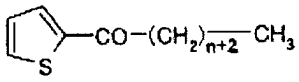
(1)

wherein n may assume any one integral value within the range of from 1 to 8,
the process comprising culturing the microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):



(7)

wherein n may assume any one integral value within the range of from 1 to 8,

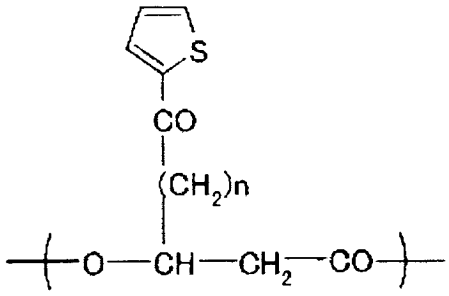


(8)

wherein n may assume any one integral value within the range of from 1 to 8,
and a straight-chain alkanoic acid having 4 to 12

carbon atoms or a salt thereof.

17. The process according to claim 7 for producing the polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):

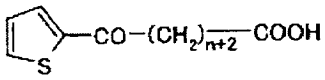


(1)

wherein n may assume any one integral value within the range of from 1 to 8,

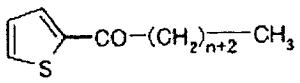
the process comprising the steps of:

(step 1-1) culturing a microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):



(7)

wherein n may assume any one integral value within the range of from 1 to 8,



(8)

wherein n may assume any one integral value within the range of from 1 to 8,

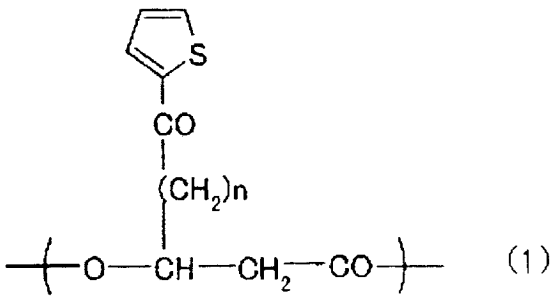
and containing polypeptone; and subsequently thereto

(step 2-1) further culturing the microorganism cultured in the step 1-1, in a culture medium containing at least one compound represented by Chemical Formula (7) or (8) and an organic acid or a salt thereof.

18. The process according to claim 17, wherein the culture medium used in the step 2-1 does not contain any nitrogen source.

19. The process according to claim 17, wherein the organic acid or the salt thereof is at least one compound selected from the group consisting of pyruvic acid, malic acid, lactic acid, citric acid and succinic acid and a salt of any of these.

20. The process according to claim 7 for producing the polyhydroxyalkanoate having in the molecule a unit represented by Chemical Formula (1):

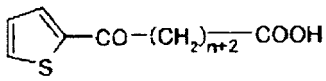


(1)

wherein n may assume any one integral value within the range of from 1 to 8,

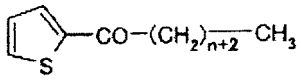
the process comprising the steps of:

(step 1-2) culturing a microorganism in a culture medium containing at least one compound represented by Chemical Formula (7) or (8):



(7)

wherein n may assume any one integral value within the range of from 1 to 8,



(8)

wherein n may assume any one integral value within the range of from 1 to 8,

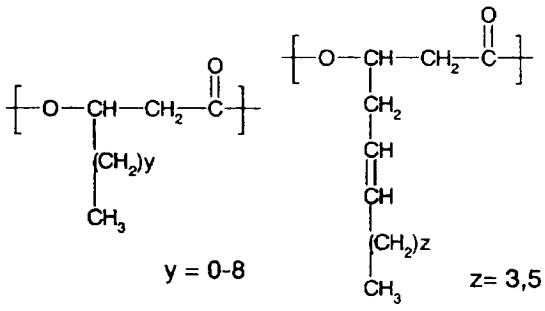
and containing a saccharide; and subsequently thereto

(step 2-2) further culturing the microorganism cultured in the step 1-2, in a culture medium containing at least one compound represented by Chemical Formula (7) or (8) and containing a saccharide.

21. The process according to claim 20, wherein the culture medium used in the step 2-2 does not contain any nitrogen source.

22. The process according to claim 20, wherein the saccharide is at least one compound selected from the group consisting of glyceraldehyde, erythrose, arabinose, xylose, glucose, galactose, mannose, fructose, glycerol, erythritol, xylitol, gluconic acid, glucuronic acid, galacturonic acid, maltose, sucrose and lactose.

23. The process according to claim 7, wherein the polyhydroxyalkanoate contains, as a unit other than the unit represented by Chemical Formula (1), at least one of units represented by Chemical Formulas (2) and (3):

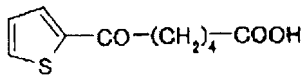


(2) , (3)

wherein y and z may assume any one integral value within the range shown in the chemical formulas, independently from the unit represented by Chemical Formula (1).

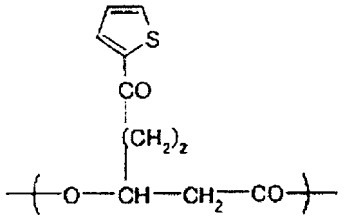
24. The process according to claim 7, which is

a process comprising culturing the microorganism in a culture medium containing 5-(2-thienoyl)valeric acid represented by Chemical Formula (9):



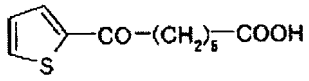
(9)

to produce a polyhydroxyalkanoate containing a unit represented by Chemical Formula (5):



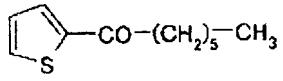
(5)

25. The process according to claim 7, which is a process comprising culturing the microorganism in a culture medium containing at least one 6-(2-thienoyl)hexanoic acid represented by Chemical Formula (10):



(10)

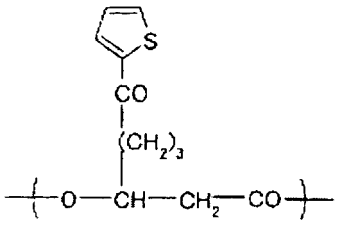
and 6-(2-thienoyl)hexane represented by Chemical Formula (11):



(11)

to produce a polyhydroxyalkanoate containing a unit

represented by Chemical Formula (6):



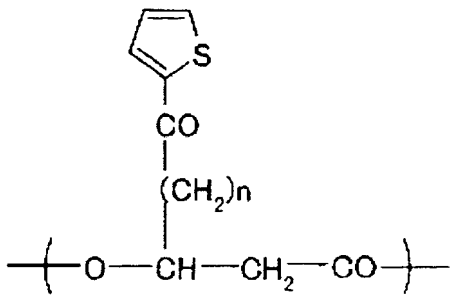
(6)

26. The process according to claim 7, wherein the microorganism is a microorganism belonging to the genus Pseudomonas.

27. The process according to claim 26, wherein the microorganism is a strain of at least one of Pseudomonas cichorii strain H45 (FERM BP-7374), Pseudomonas cichorii strain YN2 (FERM BP-7375) and Pseudomonas jessenii strain P161 (FERM BP-7376).

28. The process according to claim 7, which further comprises the step of collecting the polyhydroxyalkanoate from cells of the microorganism.

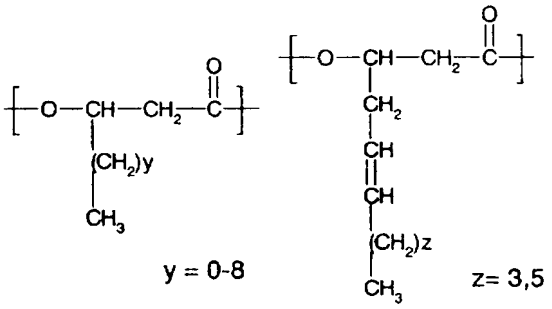
29. A charge control agent for controlling the state of charge of a powder, comprising a polyhydroxyalkanoate having in the molecule at least one unit of units represented by Chemical Formula (1):



(1)

wherein n may assume any one integral value within the range of from 1 to 8.

30. The charge control agent according to claim 29, which contains, in addition to the unit represented by Chemical Formula (1), at least one of units represented by Chemical Formulas (2) and (3):



y = 0-8

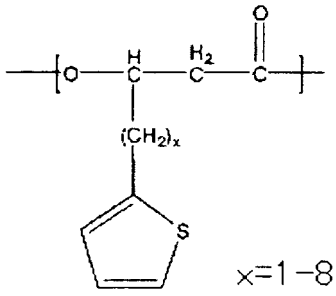
z= 3,5

(2) , (3)

wherein y and z may assume any one integral value within the range shown in the chemical formulas, independently from the unit represented by Chemical Formula (1).

31. A charge control agent for controlling the

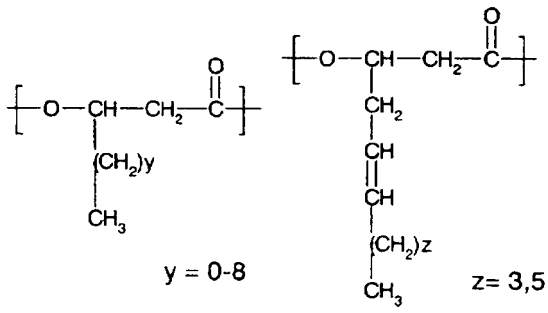
state of charge of a powder, comprising a polyhydroxyalkanoate having in the molecule at least one unit of units represented by Chemical Formula (12):



x=1-8 (12)

wherein x may assume any one integral value within the range of from 1 to 8.

32. The charge control agent according to claim 31, which contains, in addition to the unit represented by Chemical Formula (12), at least one of units represented by Chemical Formulas (2) and (3):



(2) , (3)

wherein y and z may assume any one integral value within the range shown in the chemical formulas,

independently from the unit represented by Chemical Formula (1).

33. The charge control agent according to claim 29, wherein the powder is a toner for developing electrostatic latent images.

34. The charge control agent according to claim 29, wherein the polyhydroxyalkanoate has a number-average molecular weight of from 1,000 to 500,000.

35. A toner binder used in a toner for developing electrostatic latent images, comprising the charge control agent according to claim 29.

36. A toner for developing electrostatic latent images, comprising a binder resin, a colorant and the charge control agent according to claim 29.

37. An image-forming method comprising:

a charging step of applying a voltage to a charging member from its outside to charge an electrostatic-latent-image-bearing member electrostatically;

a latent-image-forming step of forming an

electrostatic latent image on the electrostatic-latent-image-bearing member thus charged;

a developing step of developing the electrostatic latent image by the use of a toner for developing electrostatic latent images, to form a toner image on the electrostatic-latent-image-bearing member;

a transfer step of transferring to a recording medium the toner image formed on the electrostatic-latent-image-bearing member; and

a heat fixing step of fixing by heat the toner image held on the recording medium;

wherein the toner for developing electrostatic latent images comprises a binder resin, a colorant and the charge control agent according to claim 29.

38. The image-forming method according to claim 37, which comprises:

a charging step of applying a voltage to a charging member from its outside to charge an electrostatic-latent-image-bearing member electrostatically;

a latent-image-forming step of forming an electrostatic latent image on the electrostatic-latent-image-bearing member thus

charged;

a developing step of developing the electrostatic latent image by the use of a toner for developing electrostatic latent images, to form a toner image on the electrostatic-latent-image-bearing member;

a first transfer step of transferring to an intermediate transfer member the toner image formed on the electrostatic-latent-image-bearing member;

a second transfer step of transferring to a recording medium the toner image held on the intermediate transfer member; and

a heat fixing step of fixing by heat the toner image held on the recording medium;

wherein the toner for developing electrostatic latent images comprises a binder resin, a colorant and the charge control agent according to claim 29.

39. An image-forming apparatus comprising:

a charging means for applying a voltage to a charging member from its outside to charge an electrostatic-latent-image-bearing member electrostatically;

a latent-image-forming means for forming an electrostatic latent image on the electrostatic-latent-image-bearing member thus

charged;

a developing means for developing the electrostatic latent image by the use of a toner for developing electrostatic latent images, to form a toner image on the electrostatic-latent-image-bearing member;

a transfer means for transferring to a recording medium the toner image formed on the electrostatic-latent-image-bearing member; and

a heat fixing means for fixing by heat the toner image held on the recording medium;

wherein the toner for developing electrostatic latent images comprises a binder resin, a colorant and the charge control agent according to claim 29.

40. The image-forming apparatus according to claim 39, which comprises:

a charging means for applying a voltage to a charging member from its outside to charge an electrostatic-latent-image-bearing member electrostatically;

a latent-image-forming means for forming an electrostatic latent image on the electrostatic-latent-image-bearing member thus charged;

a developing means for developing the

electrostatic latent image by the use of a toner for developing electrostatic latent images, to form a toner image on the electrostatic-latent-image-bearing member;

a first transfer means for transferring to an intermediate transfer member the toner image formed on the electrostatic-latent-image-bearing member;

a second transfer means for transferring to a recording medium the toner image held on the intermediate transfer member; and

a heat fixing means for fixing by heat the toner image held on the recording medium;

wherein the toner for developing electrostatic latent images comprises a binder resin, a colorant and the charge control agent according to claim 29.